

FIG. 1

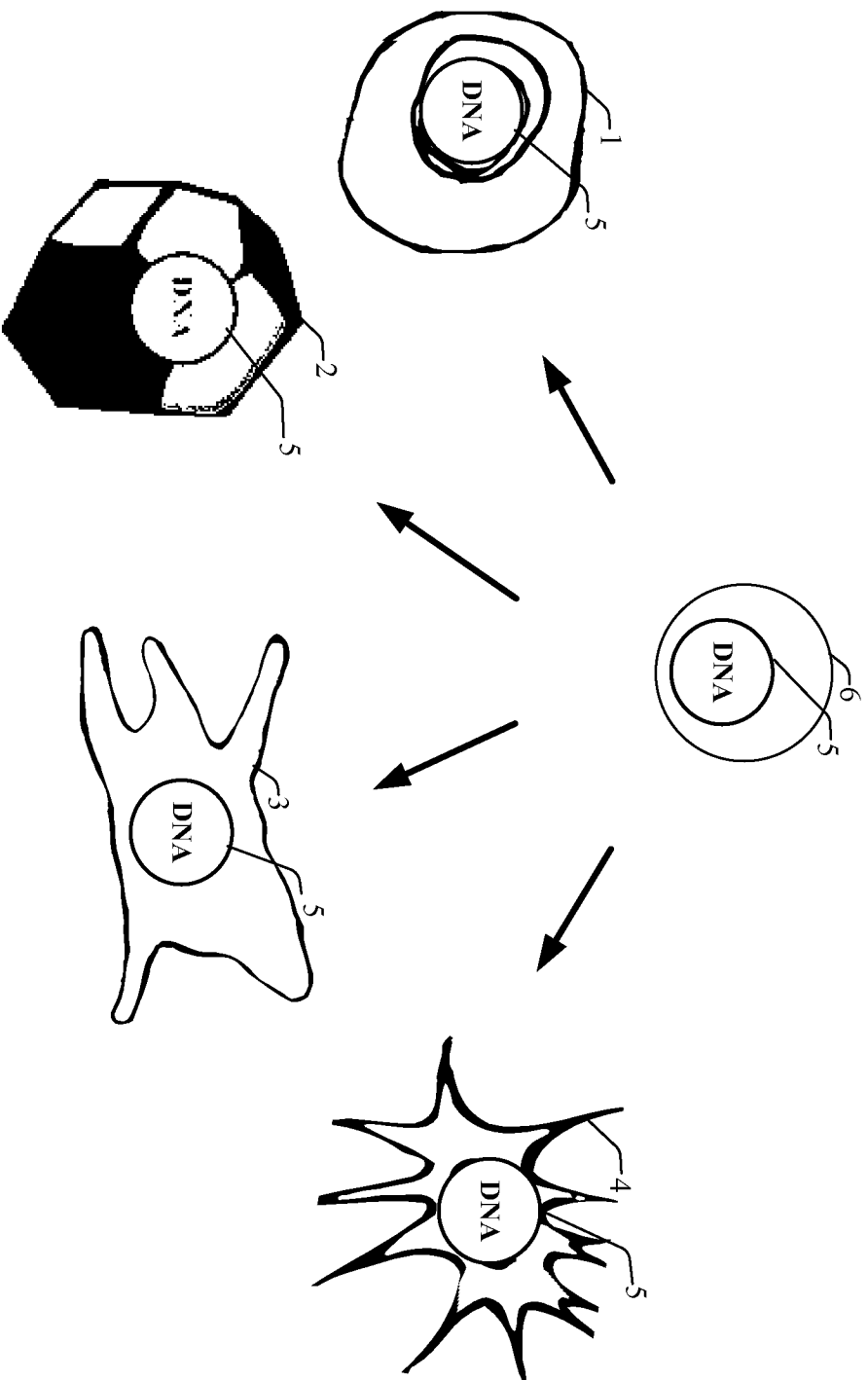


FIG. 2A

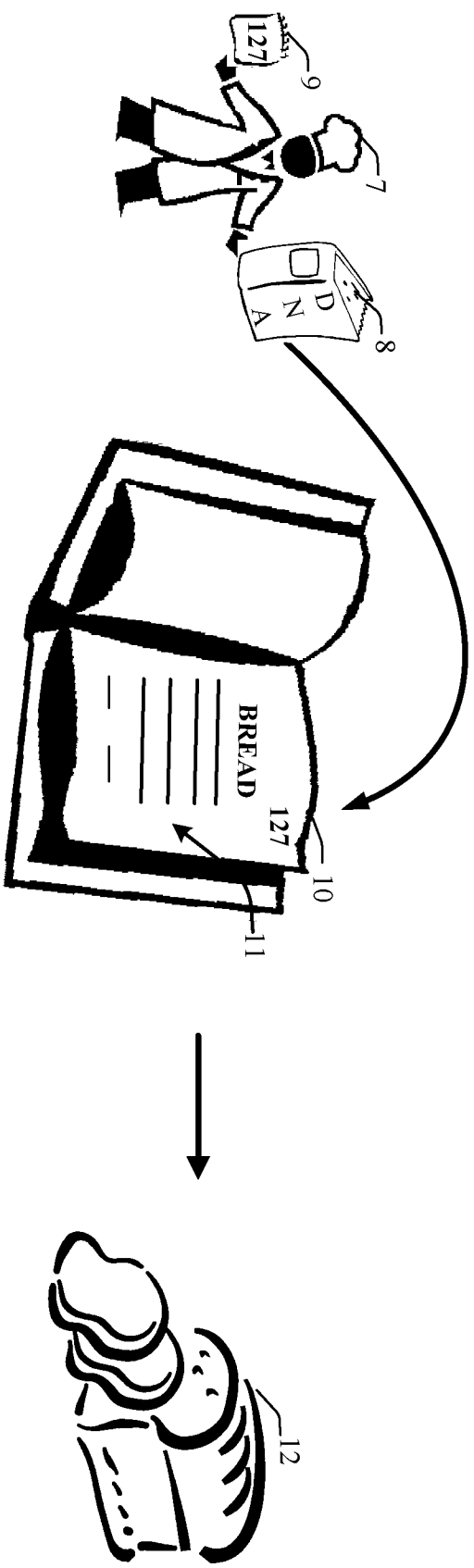


FIG. 2B

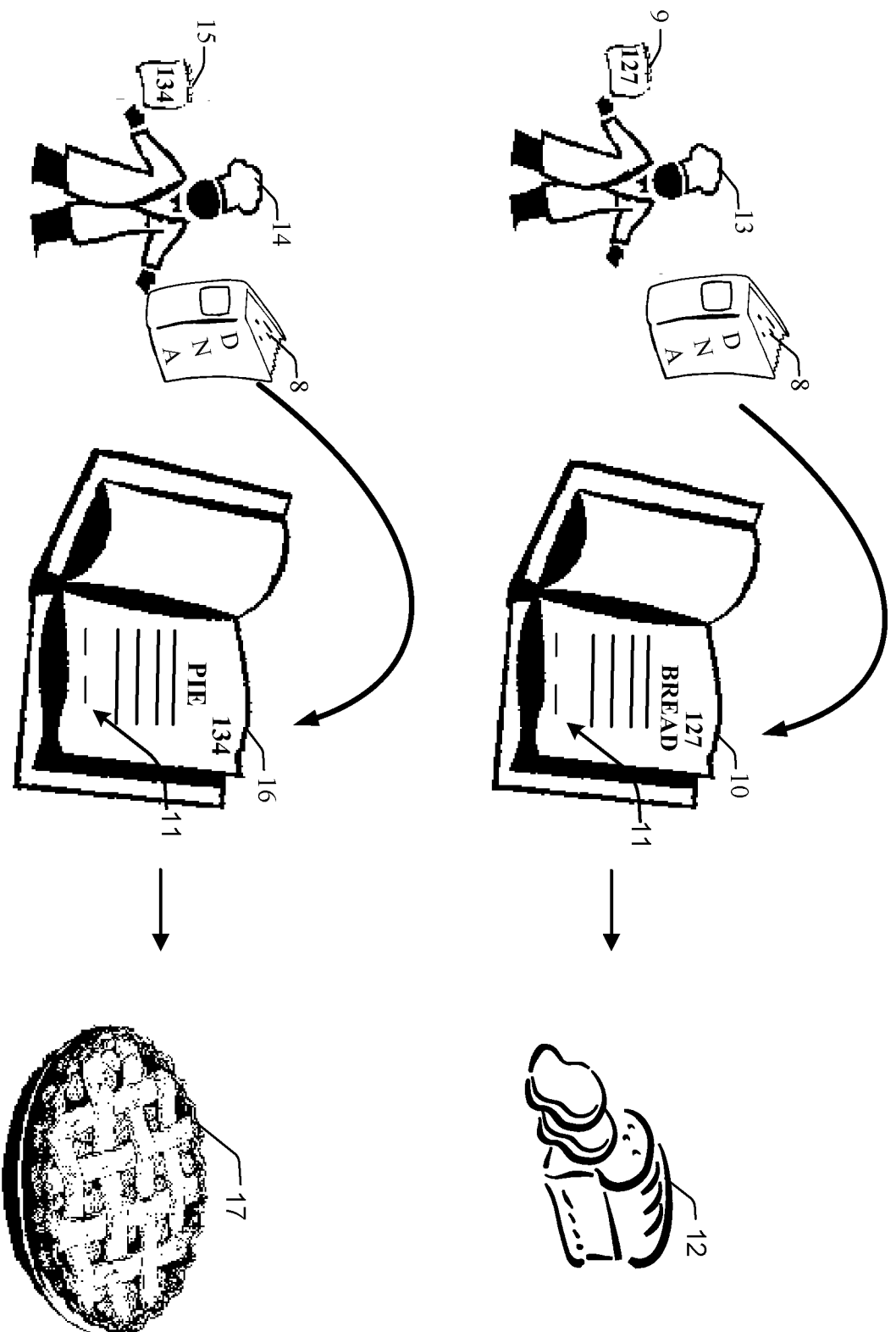


FIG. 3

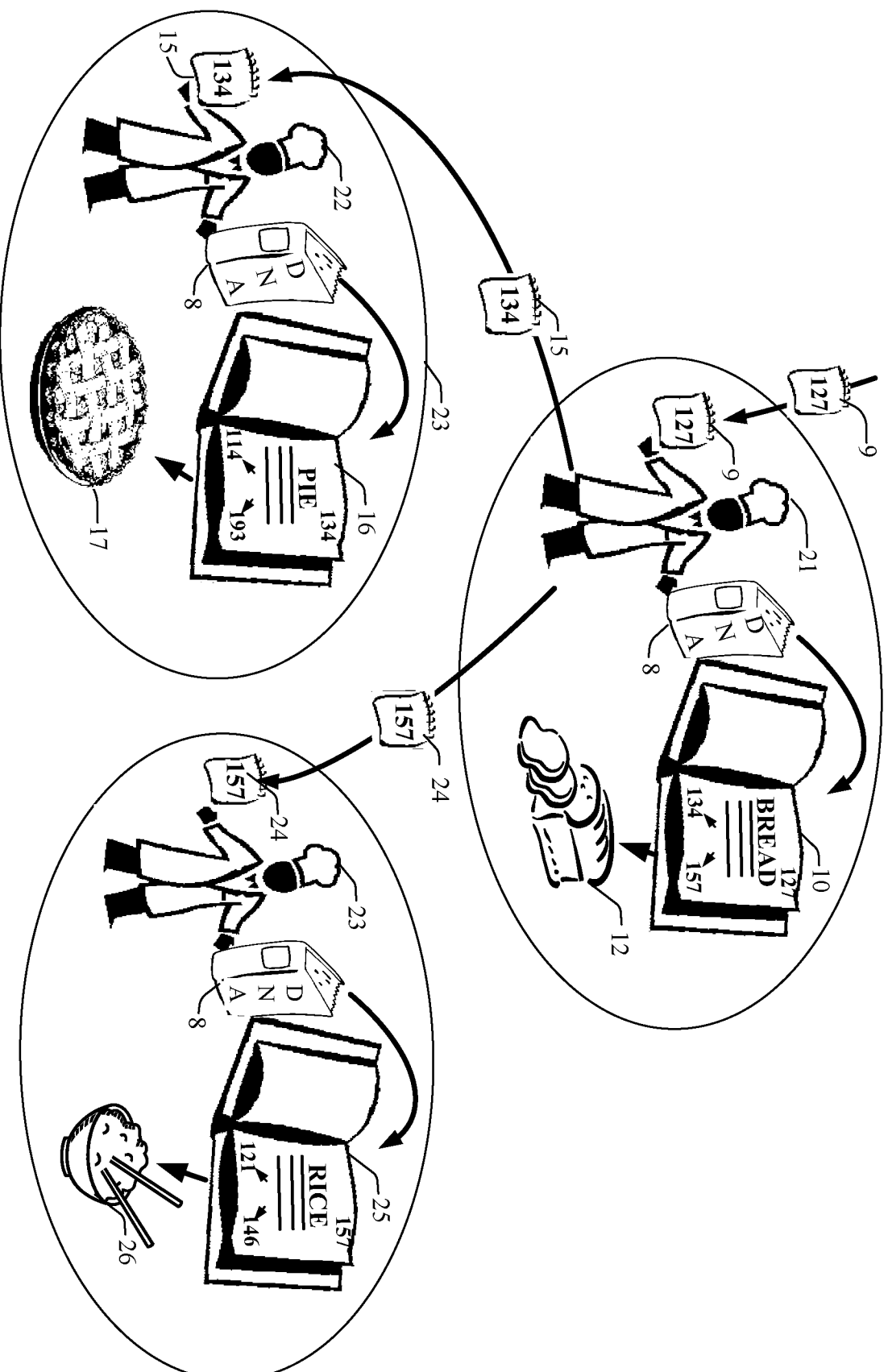


FIG. 4

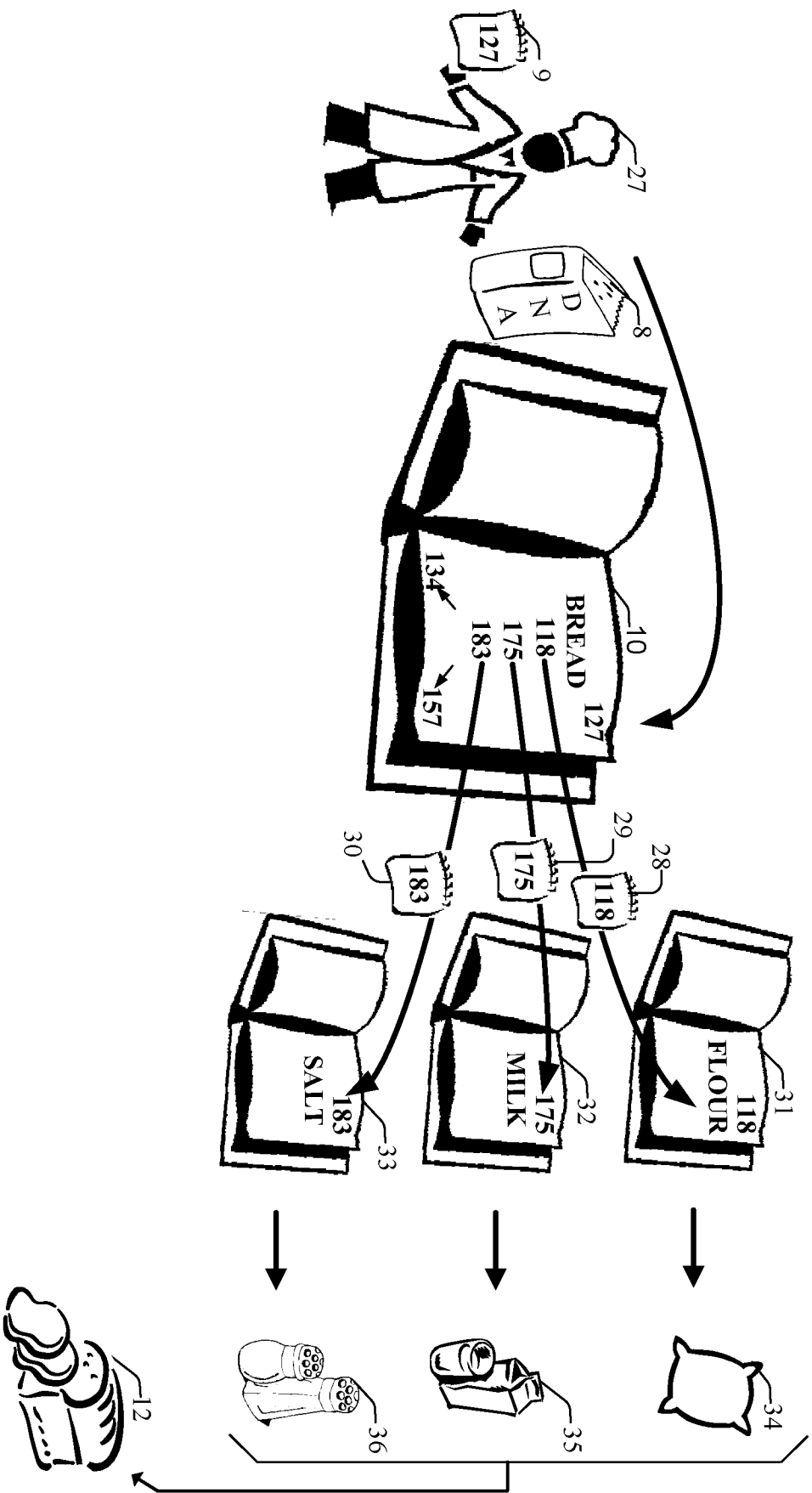
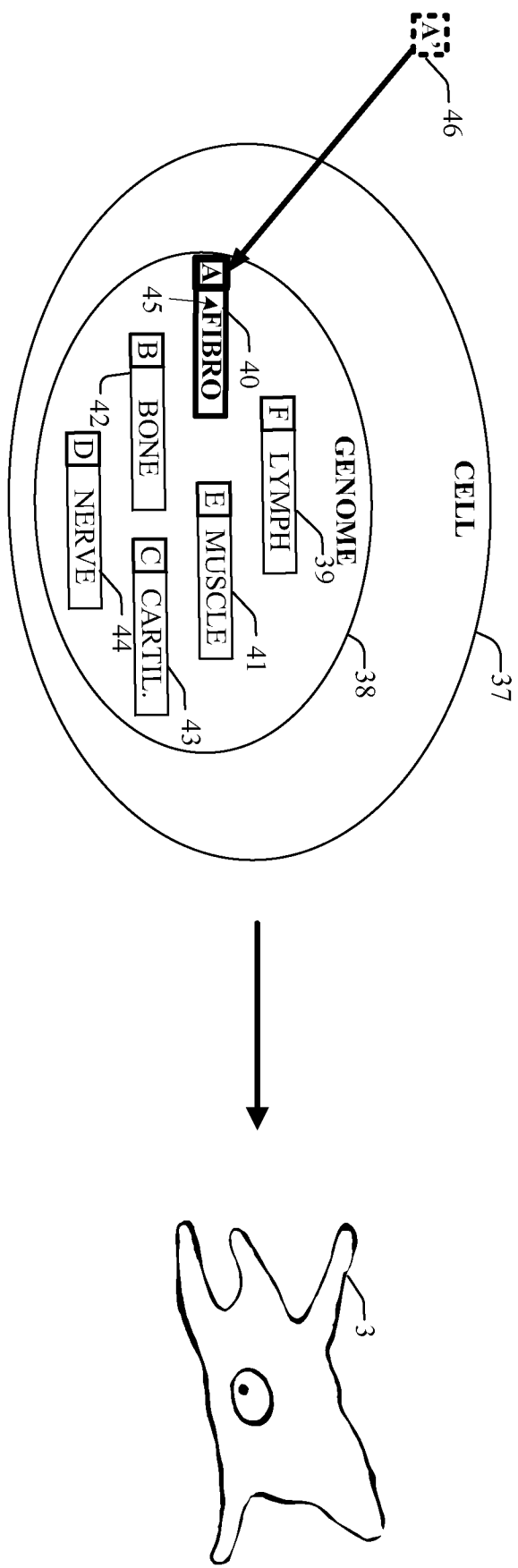


FIG. 5A



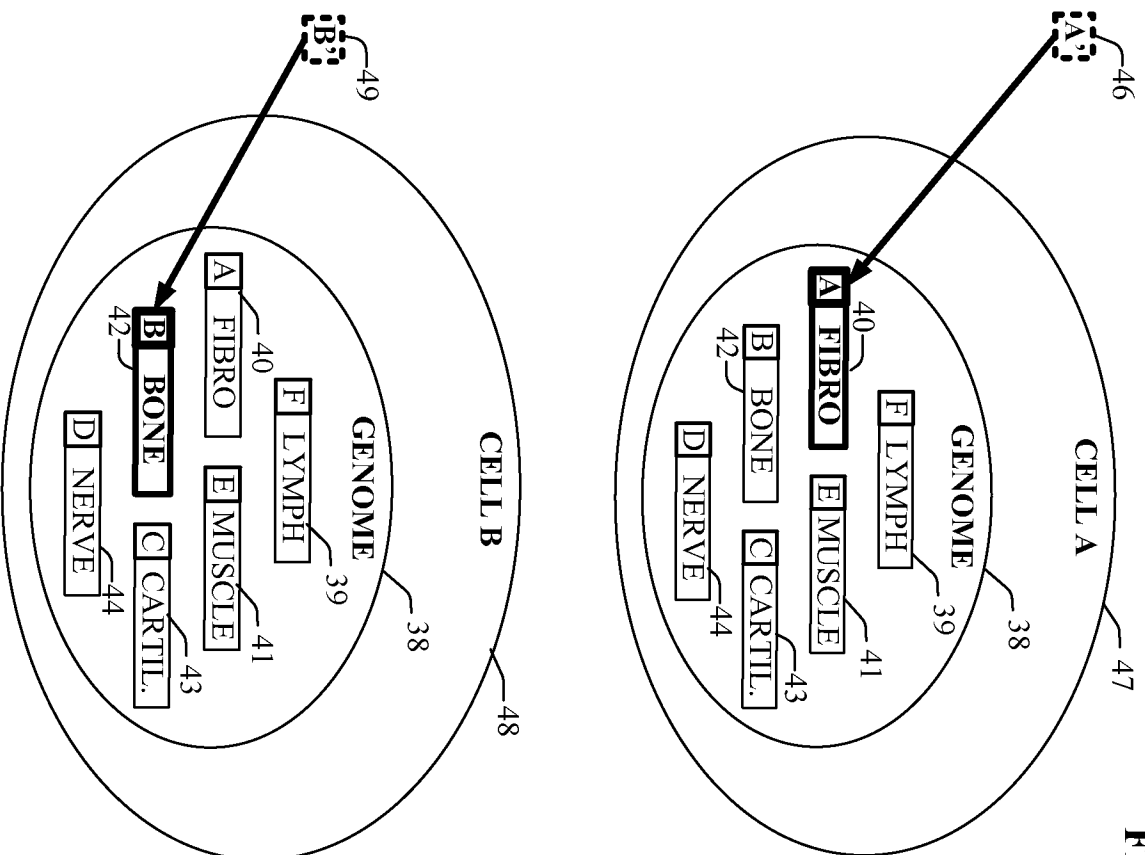


FIG. 5B

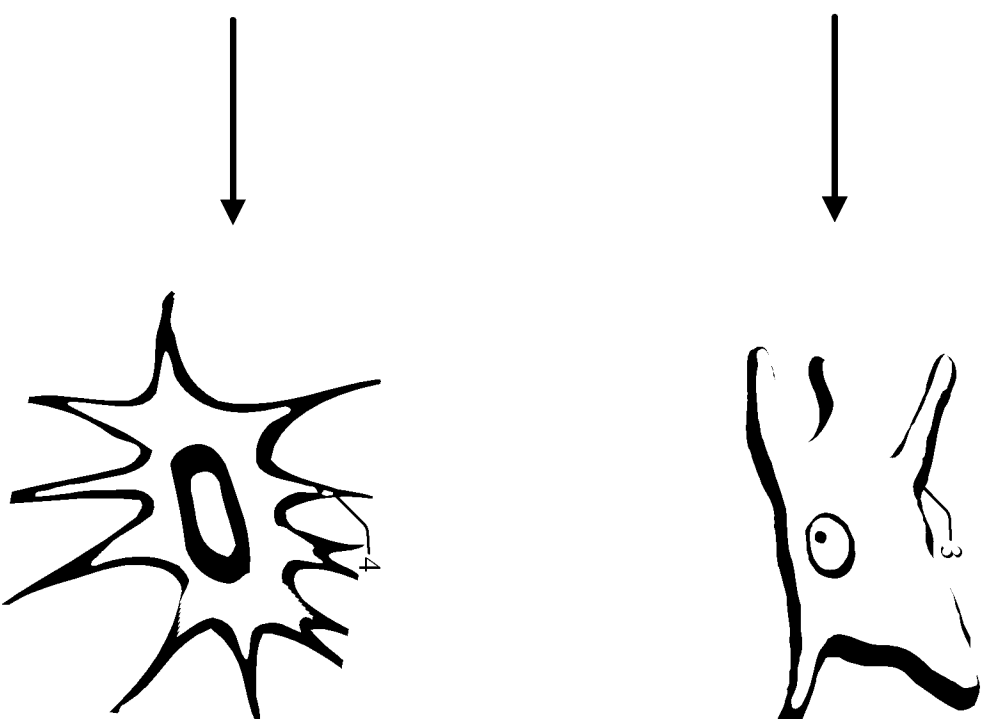
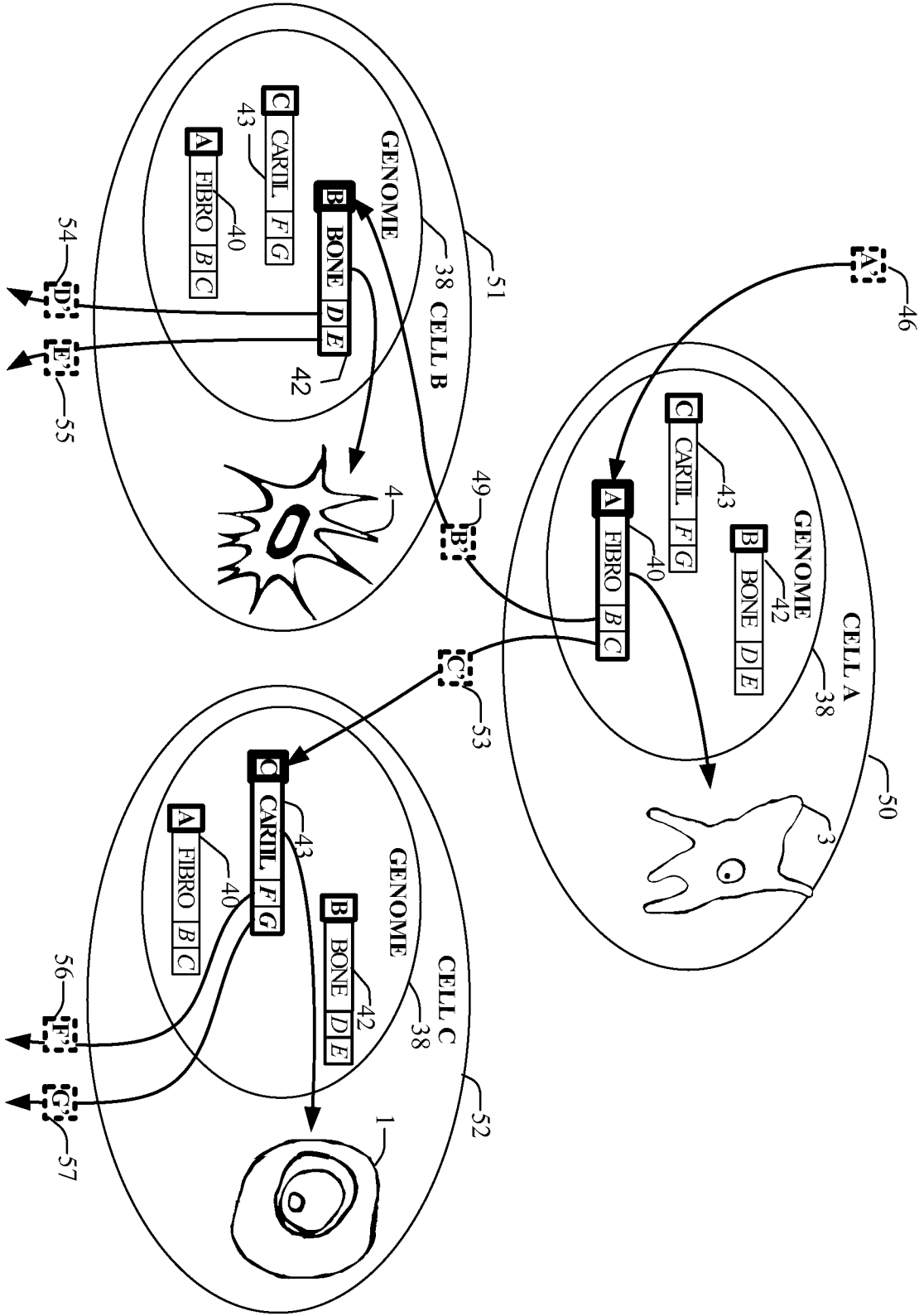


FIG. 6



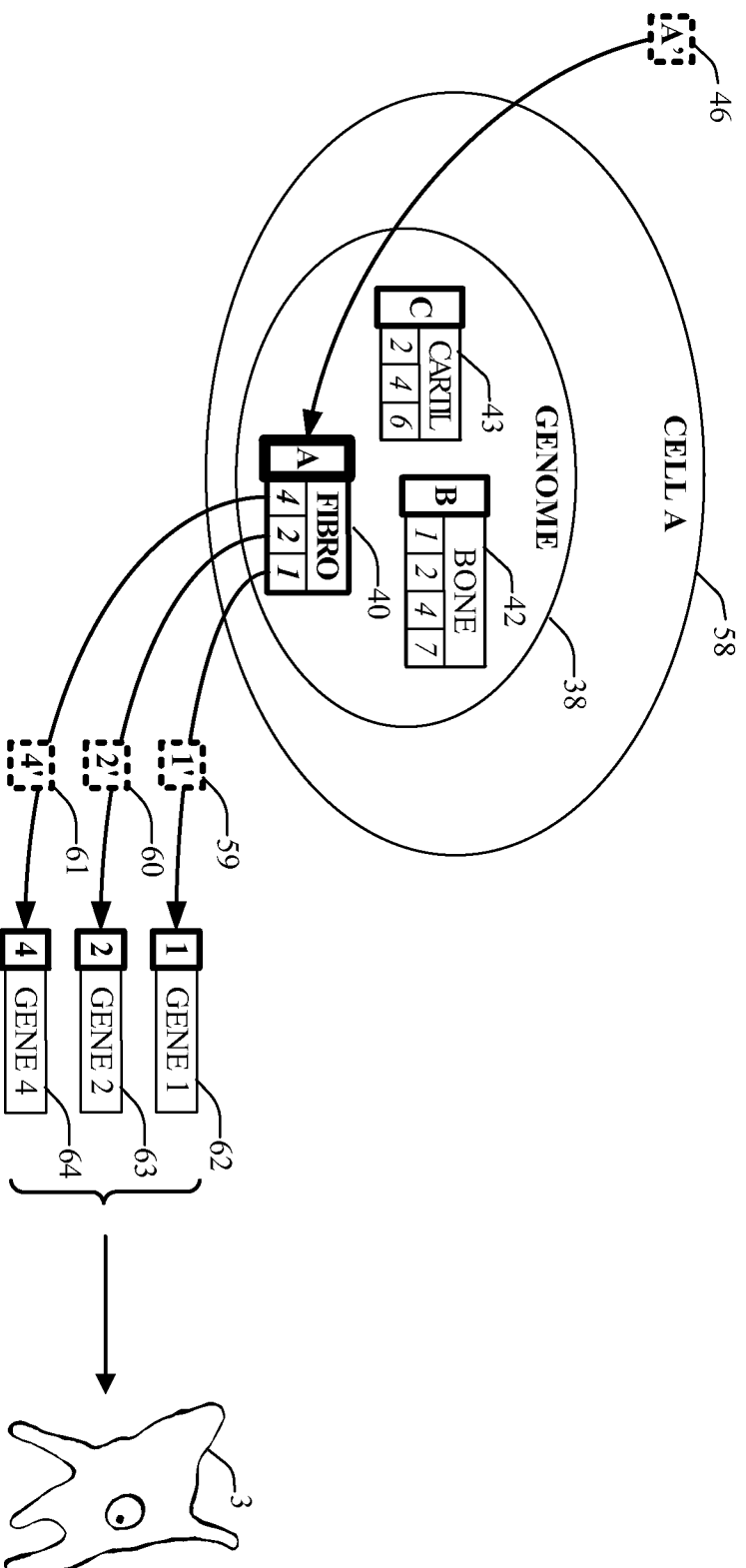


FIG. 7

FIG. 8

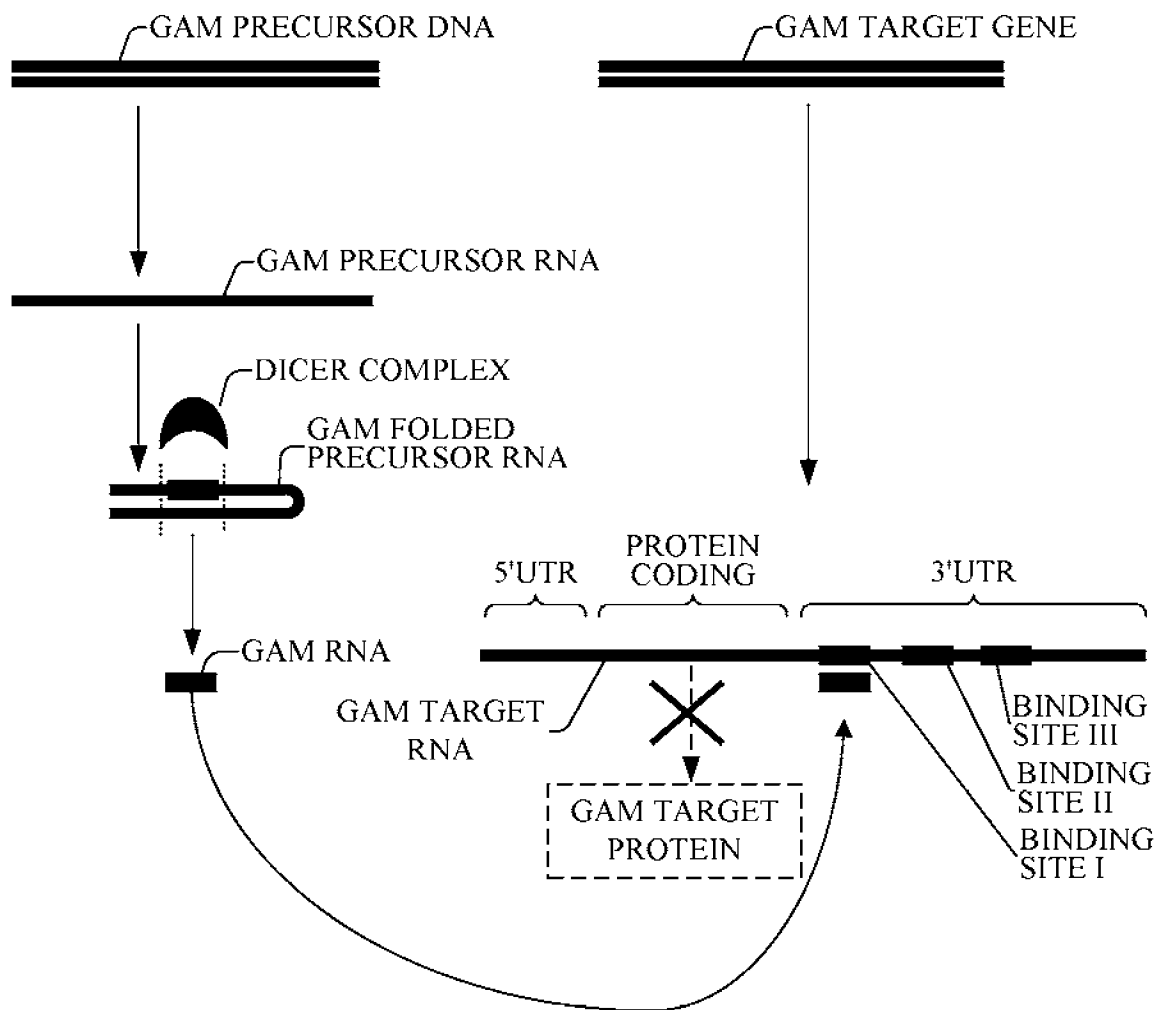


FIG. 9

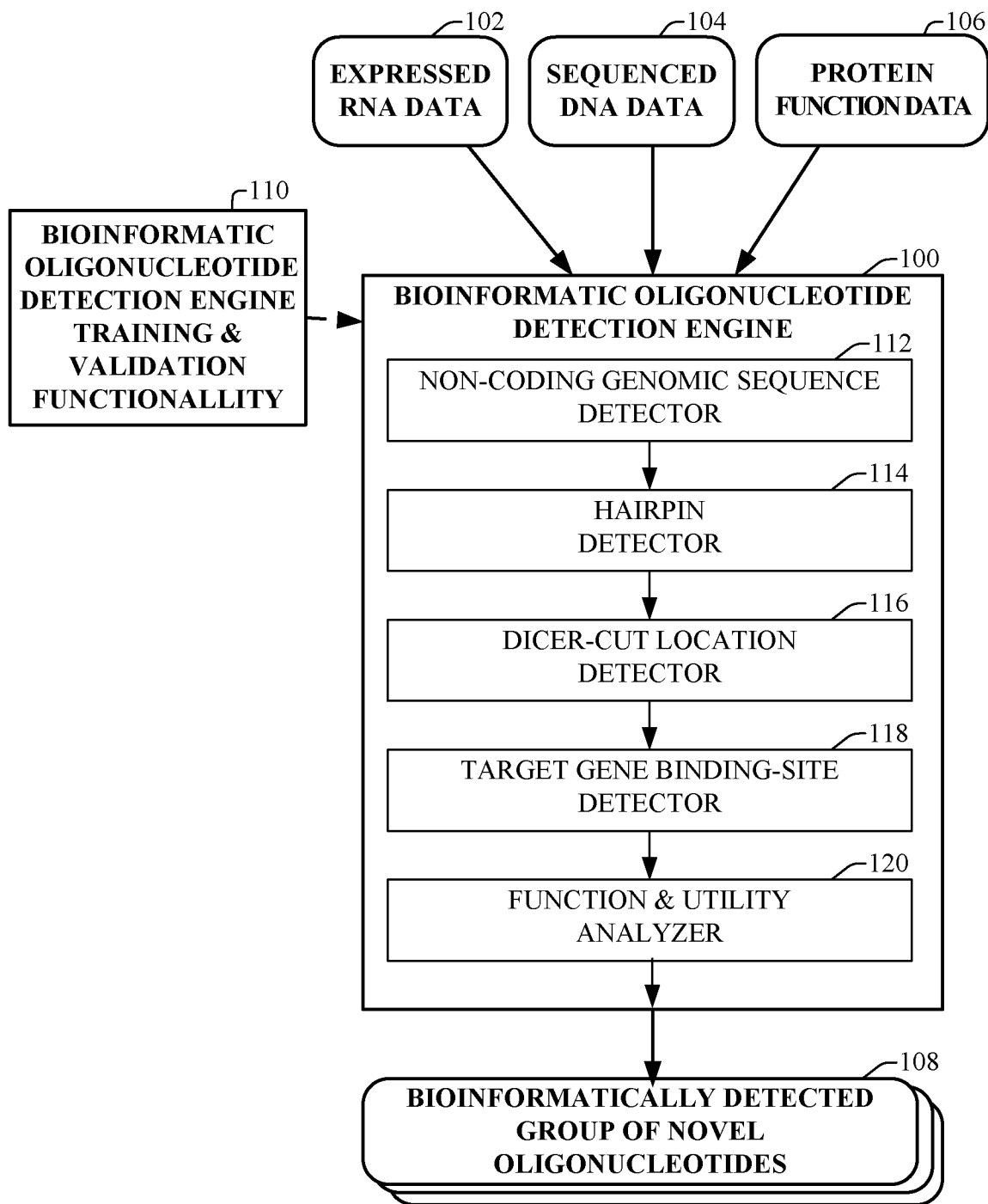


FIG. 10

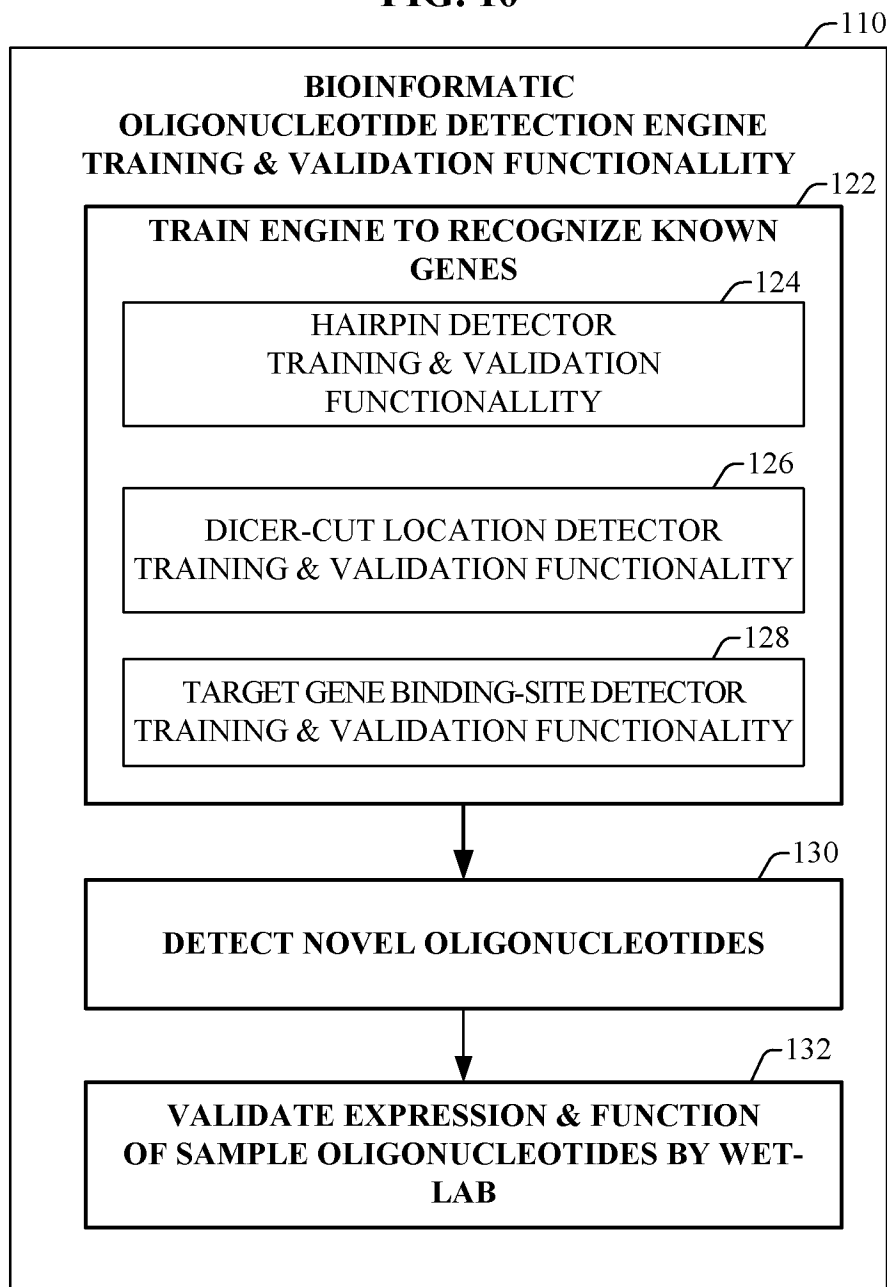


FIG. 11A

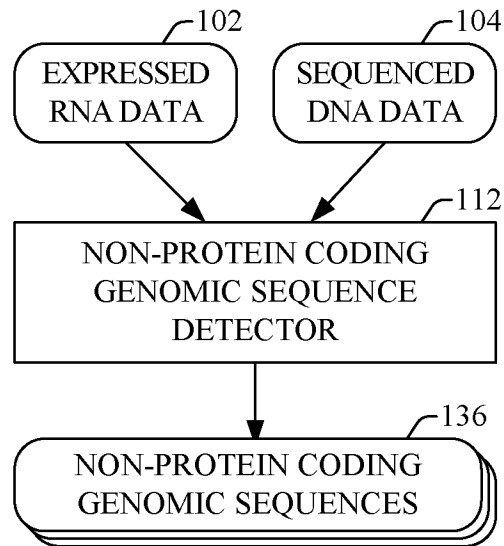


FIG. 11B

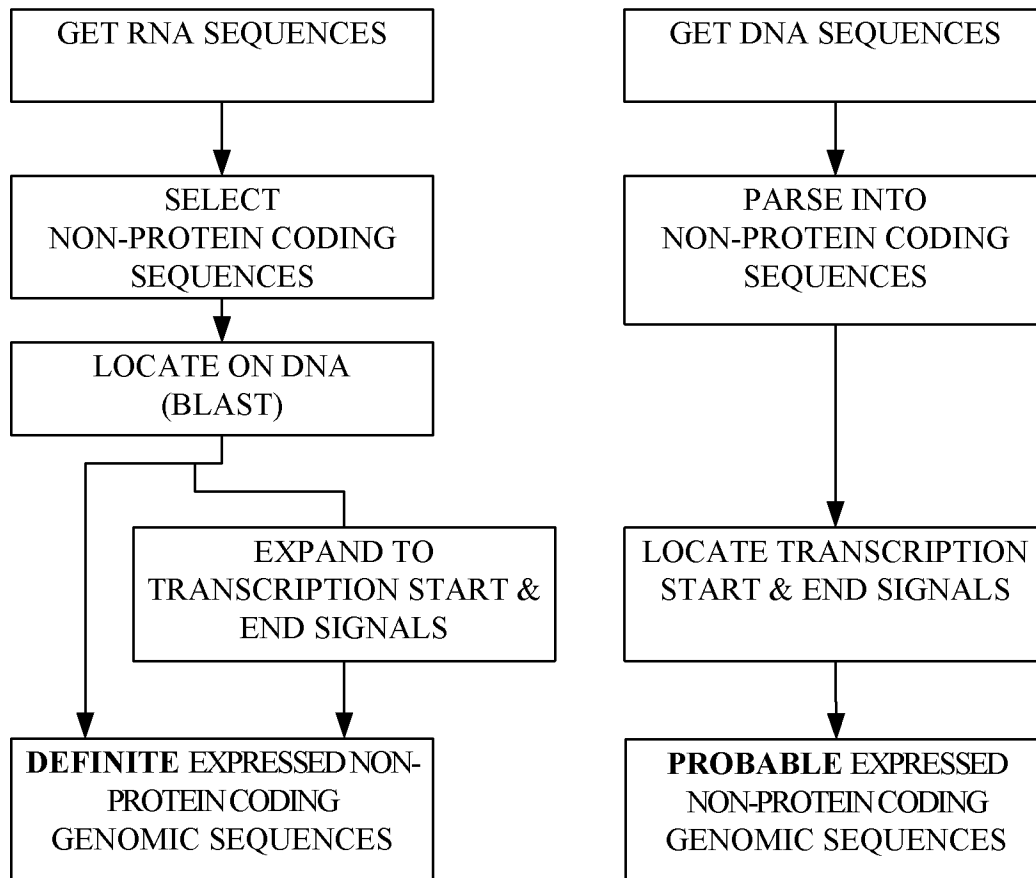


FIG. 12A

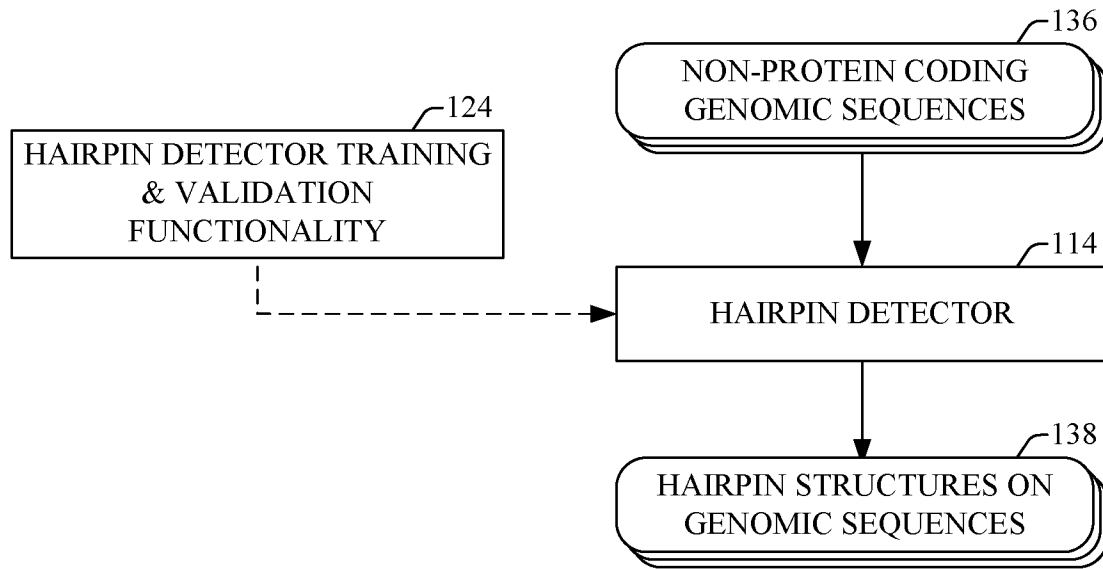


FIG. 12B

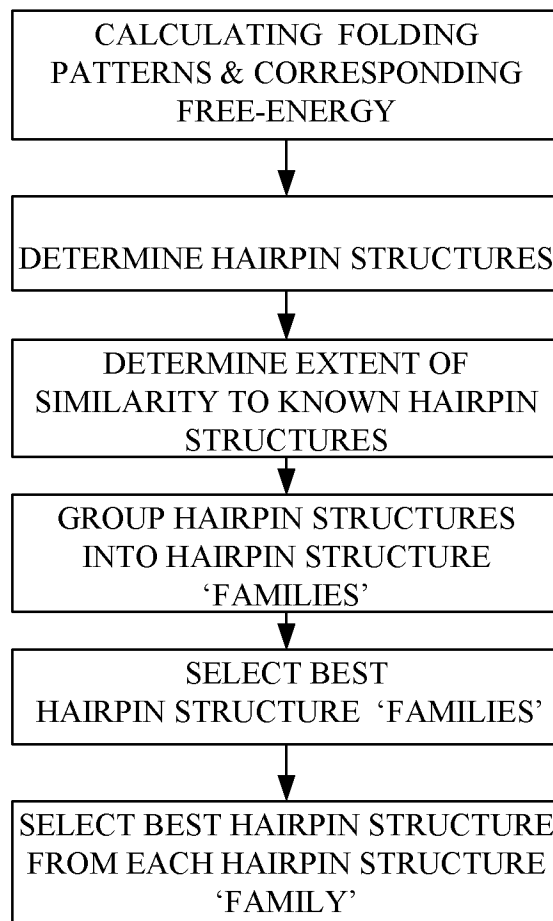


FIG. 13A

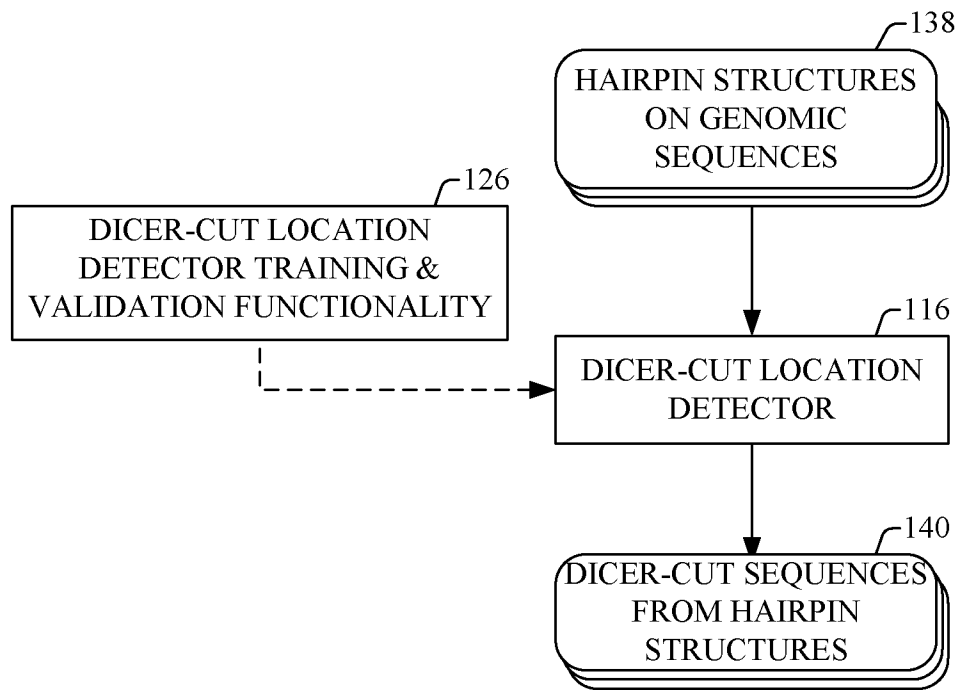


FIG. 13B

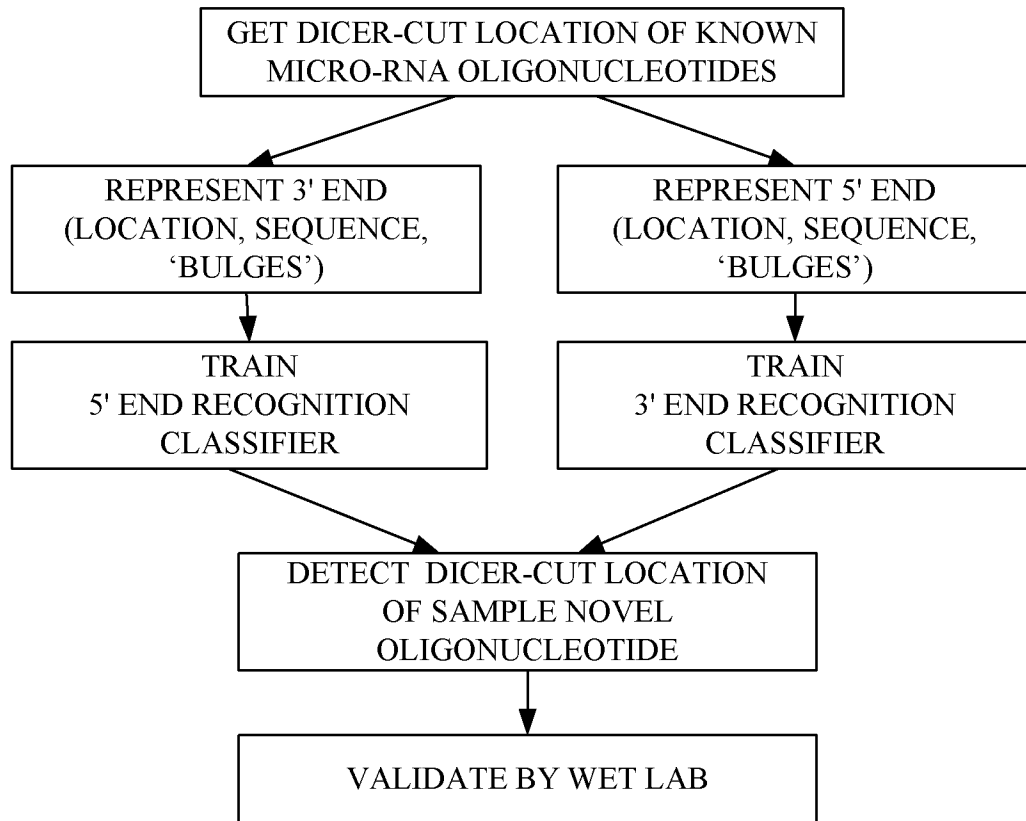


FIG. 13C

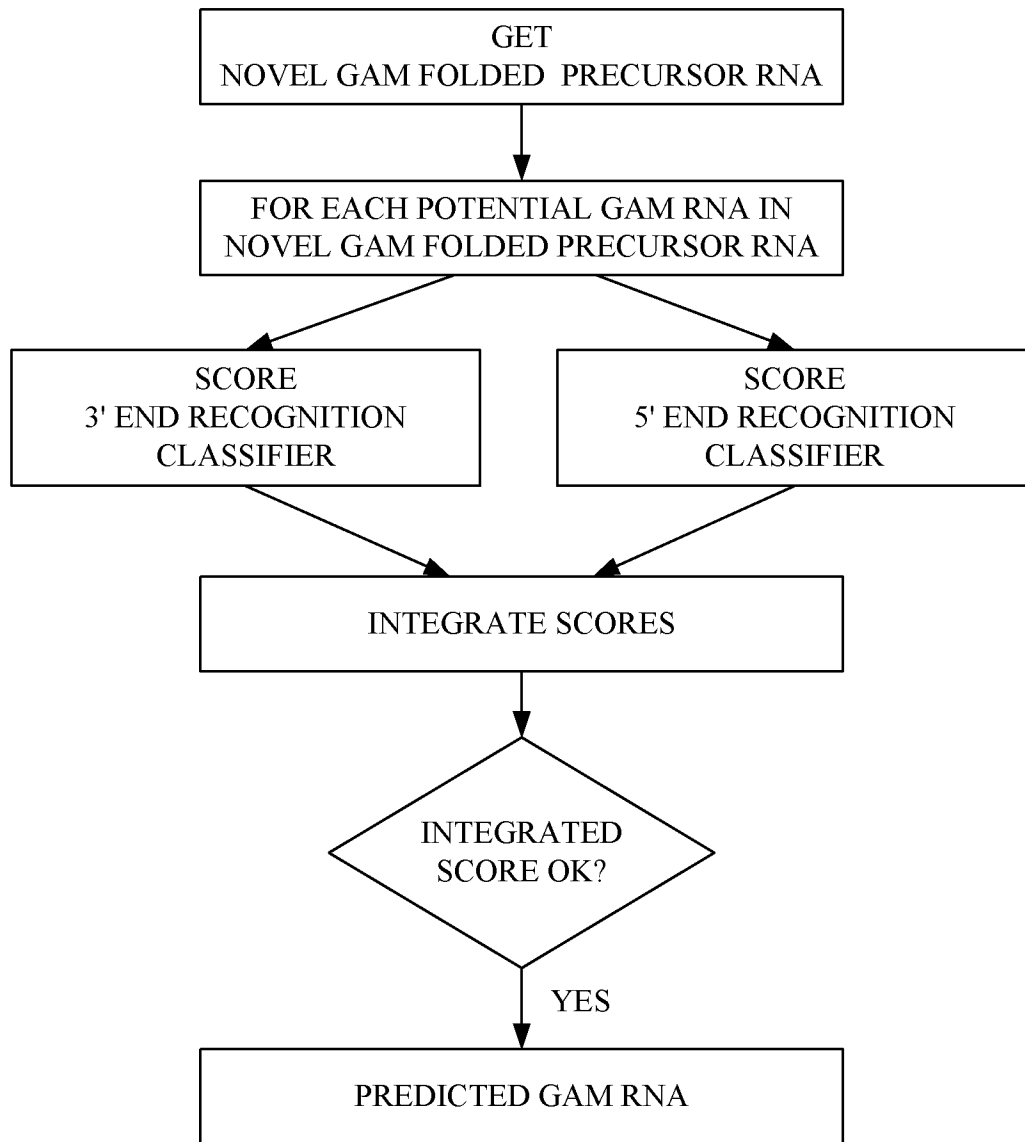


FIG. 14A

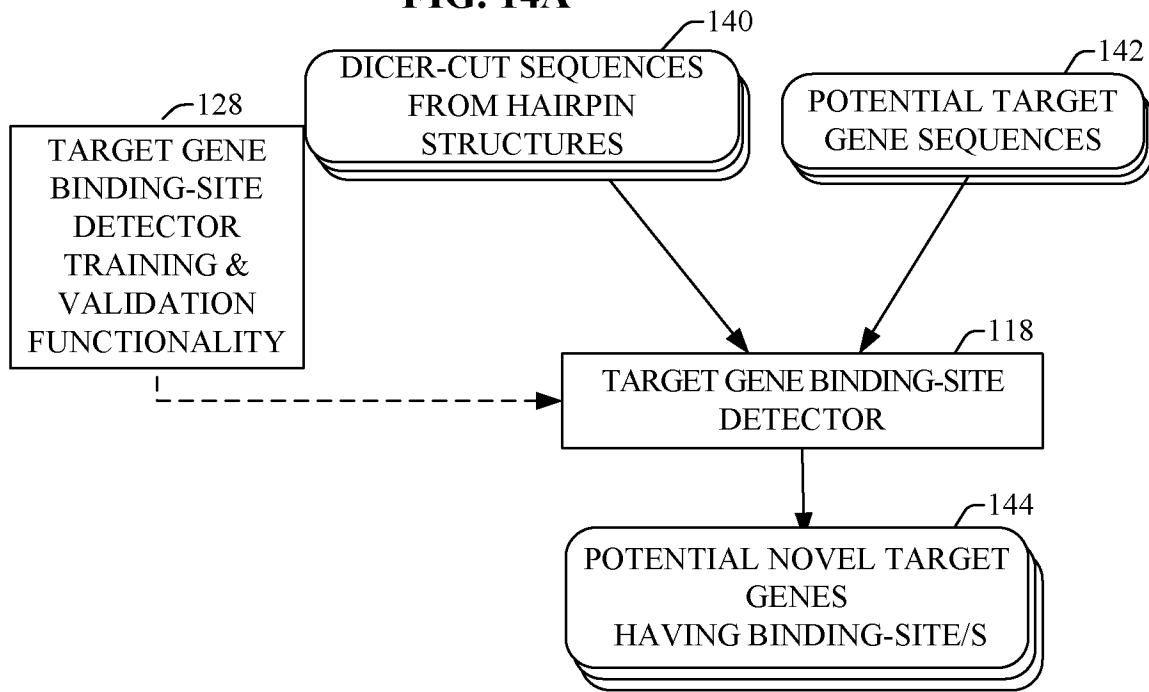


FIG. 14B

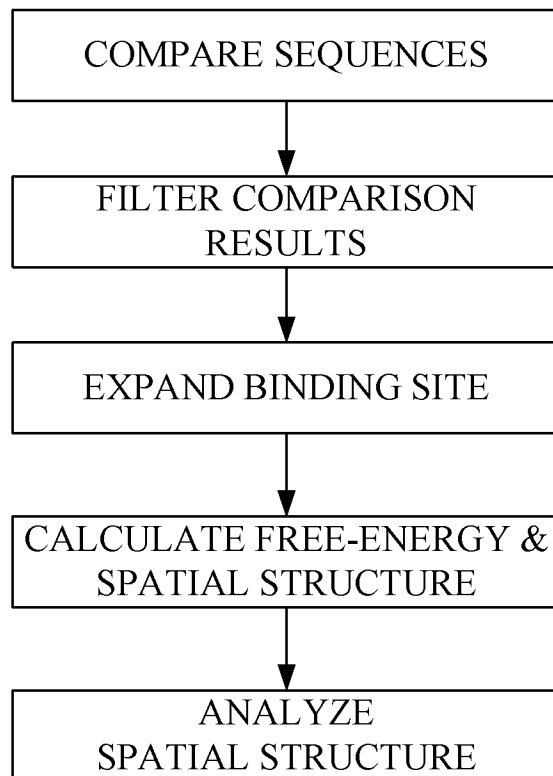


FIG. 15

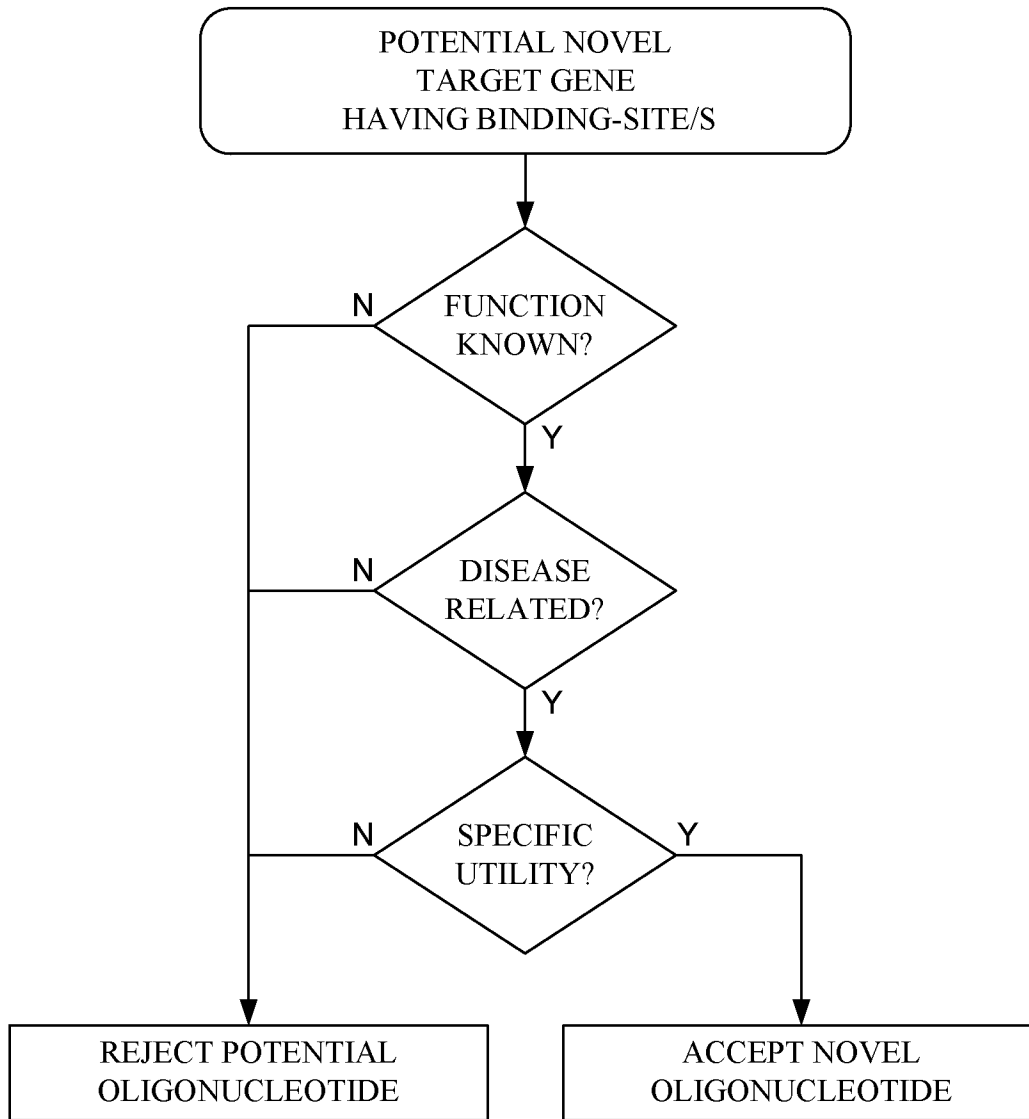


FIG. 16

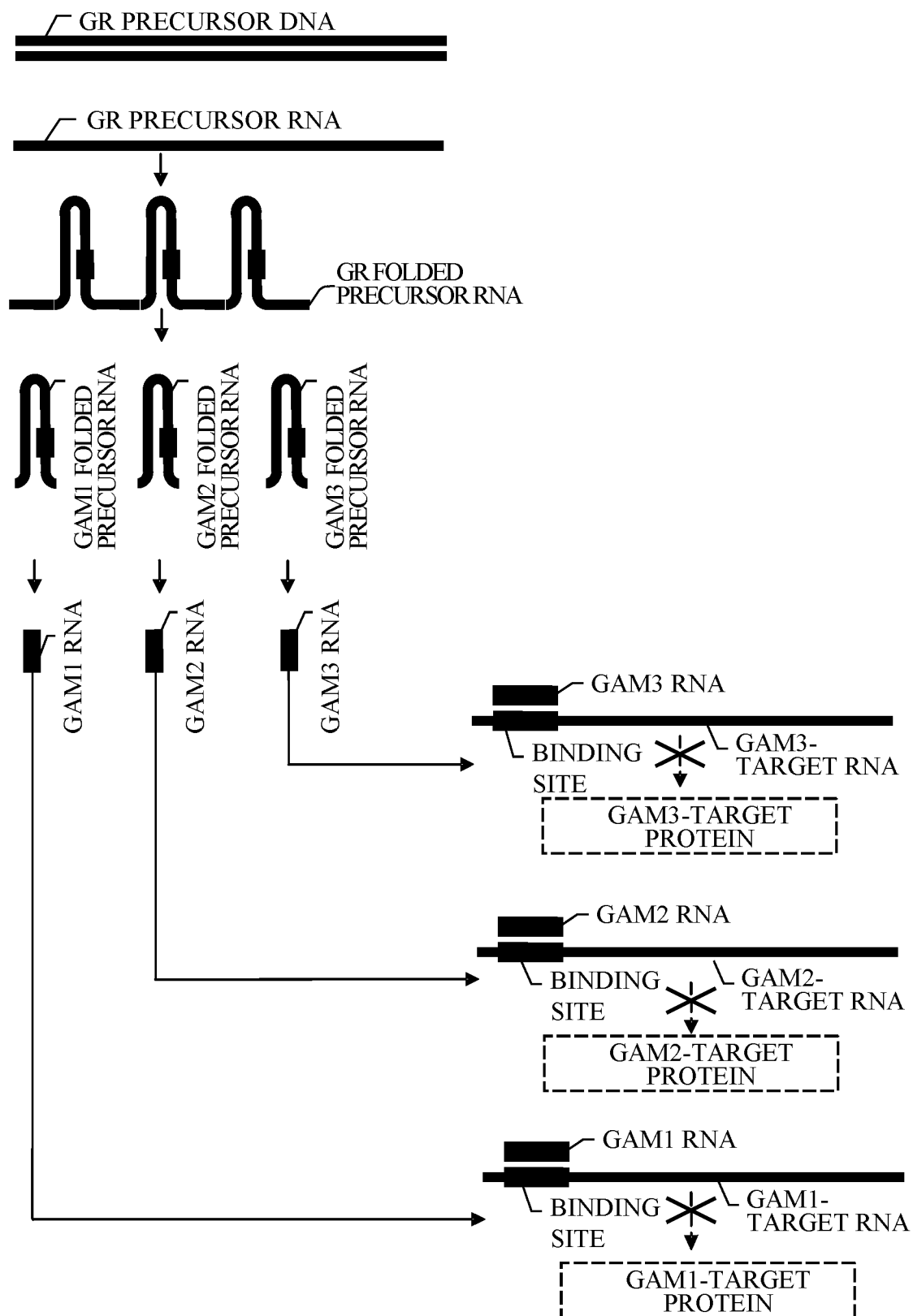


FIG. 17

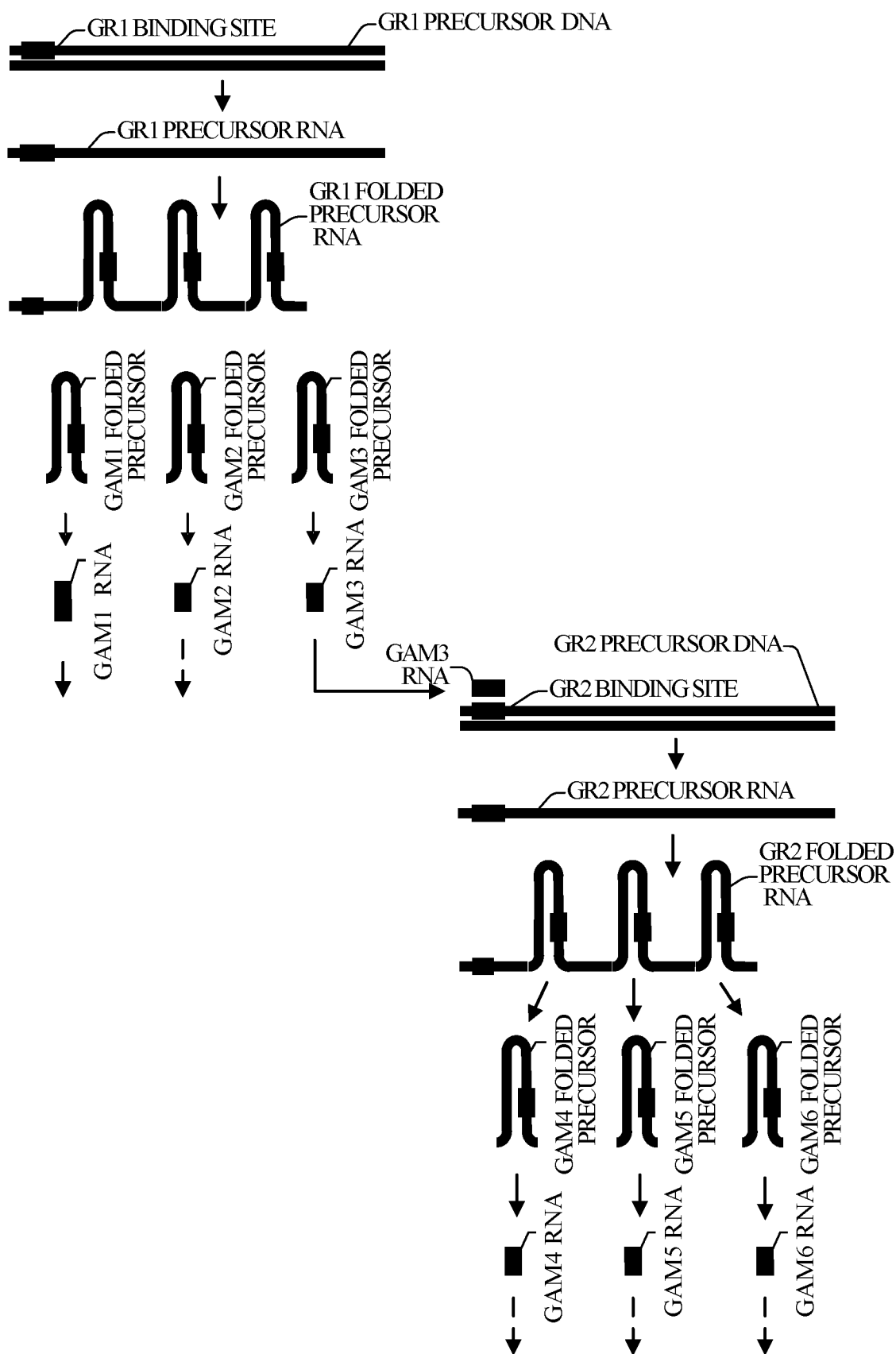


FIG. 18

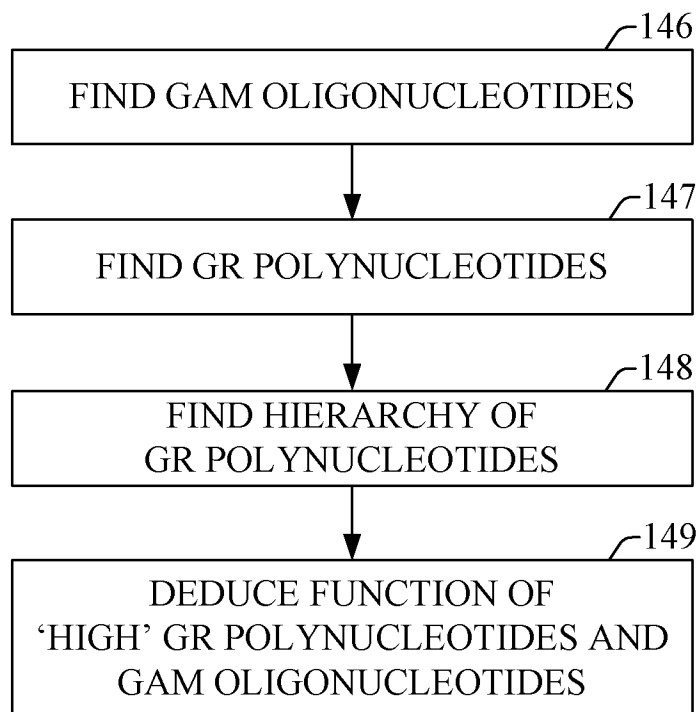


FIG. 19

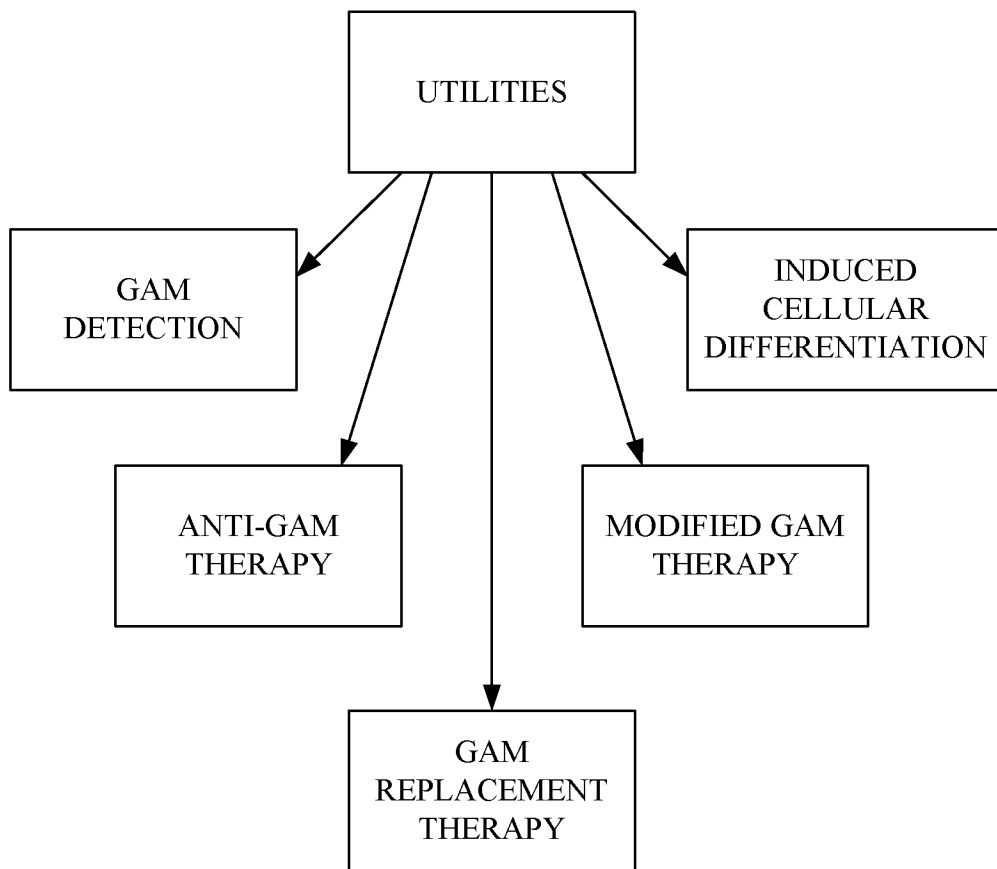


FIG. 20A

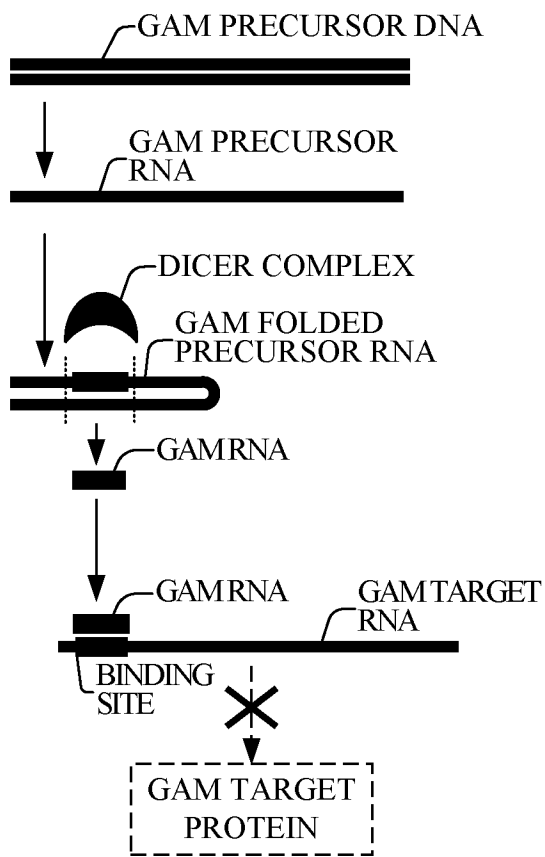


FIG. 20B

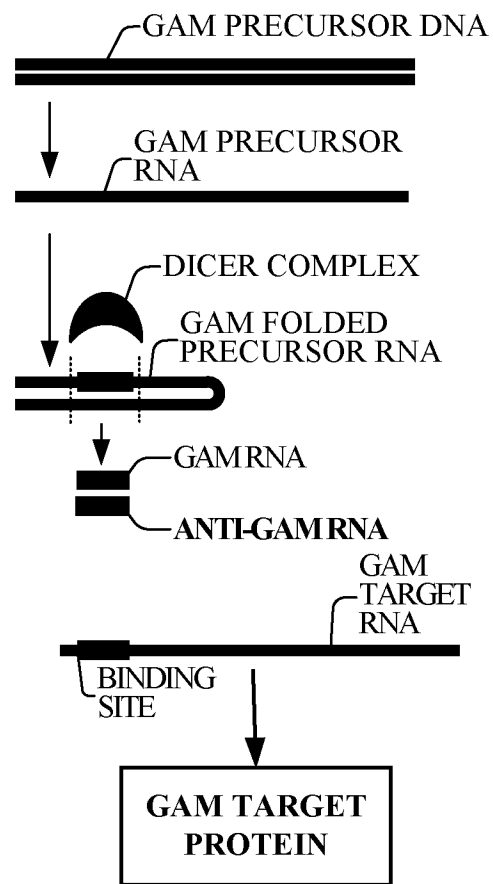


FIG.21A

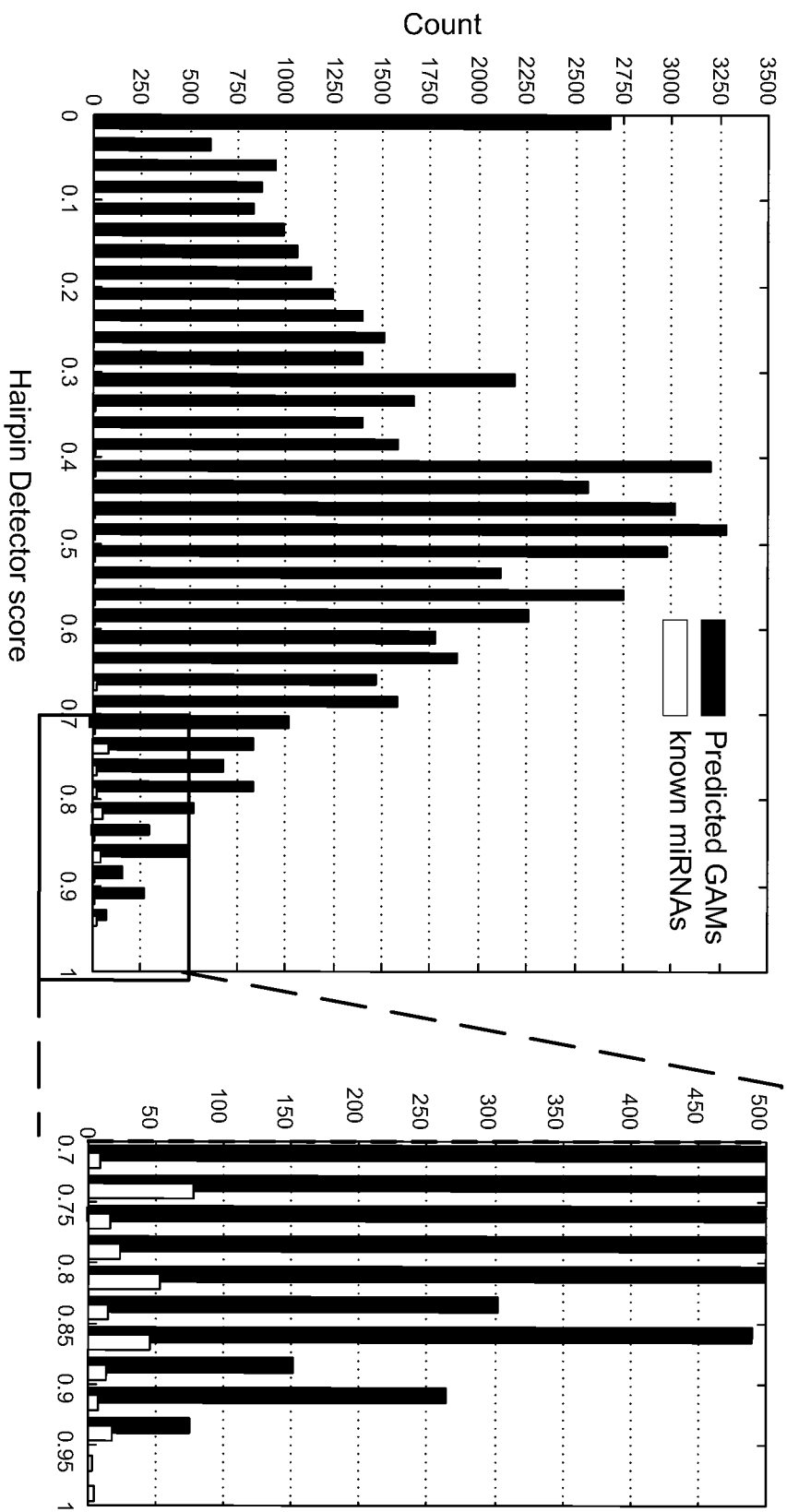


FIG. 21B

GAM Detection Accuracy Group	Number of published hairpins	Precision on hairpin mixture	Lab validation of Human GAMs			Hairpins in RNA databases	Hairpins of the present invention
			Sent	Positive	% success		
A	228	76%	101	37	37%	2821	1419
B	135	41%	56	13	23%	19950	333
C	27	18%	7	1	14%	11765	18
D	20	10%	4	1	25%	7876	2
Overall	410	44%	168	52	31%	42416	1708

FIG. 22A



FIG. 22B

NUMBER	NAME	SEQUENCE (5 TO 3)	SEQUENCED
1	hsa-miR-21	TAGCTTATCAGACTGATGTTGA	+
2	hsa-miR-27b	TTCACAGTGGCTAAGTTCTGCA	+
3	hsa-miR-186	AAAGAATTCTCCTTTTGGGCTT	+
4	hsa-miR-93	AAGTGCTGTTCGTGCAGGTAGT	+
5	hsa-miR-26a	TCAAGTAATCCAGGATAGGCTG	+
6	hsa-miR-191	AACGGAATCCCAAAAGCAGCTG	+
7	hsa-miR-31	GGCAAGATGCTGGCATAGCTGT	+
8	hsa-miR-92	TATTGCACTTGTCCCGGCCTGT	+
9	GAM3418-A	ATCACATTGCCAGGGATTACCA	+
10	GAM4426-A	GAAGTTTGAAGCCTGTTGTTCA	+
11	GAM281-A	CACTGCACTCCAGCCTGGGCAA	
12	GAM7553-A	TAGGTAGTTTCCTGTTGTTGGG	+
13	GAM5385-A	TCACAGTGAACCGGTCTCTTTC	+
14	GAM2608-A	TAAGGTGCATCTAGTGCAGTTA	
15	GAM1032-A	CTAGACTGAAGCTCCTTGAGGA	+
16	GAM3431-A	TAATACTGCCGGGTAATGATGG	
17	GAM7933-A	TAGCAGCACATAATGGTTTGAA	
18	GAM3298-A	AAAGTGCTCATAGTGCAGGTAG	+
19	GAM7080-A	TTTCCACAGCGGCCAATTCTTC	+
20	GAM895-A	AGCTGCCAGTTGAAGAACATTT	
21	GAM3770-A	AAGTTAAGAGCTCCAGGCCTG	
22	GAM337162-A	ACTGCACTCCAGCCTGGGCAAC	+
23	GAM8678-A	GTGTTCCAGGAAGTCGTCTTGA	
24	GAM2033-A	TCAAGCTCATTCTCTAACCTC	
25	GAM7776-A	CATTGCACTCCAGCCTGGGCAA	+
26	GAM8145-A	ACATGATCTCCTCACTCTAGGA	
27	GAM25-A	AATTGCTTGAACCCAGGAAGTG	+
28	GAM7352-A	TGTTTAAGTAGCTTATTTATCT	
29	GAM337624-A	TCTAAGAGAAAGGAAGTTCAGA	+
30	GAM1479-A	GAAGGCAGTAGGTTGTATAGTT	+
31	GAM2270-A	ATCACATTGCCAGTGATTACCC	+
32	GAM7591-A	TTGGAGTAATTCAGTATAGGTT	+
33	GAM8285-A	AGTAGACAGTGGCAACATAGTC	
34	GAM6773-A	CTAGCCTGTTTGTCTCACCCC	+
35	GAM336818-A	TGAGGTGGGATCCCGAGGCC	+
36	GAM336487-A	TGGCTAGGTAAGGGAAG	+
37	GAM337620-A	AATCATCATTATTTGAAGTTTA	+
38	GAM336809-A	TAAGGCATTTTTATGGT	+
39	GAM5346-A	GCTGTTGTTAAGGGCACTTGGG	
40	GAM8554-A	TTCATGGGAGCAGGTGGTACAG	
41	GAM2701-A	ACTGCACTCCAGTCTGGGTGAC	
42	GAM7957-A	TCACTGCAACCTCTGCCTCCCG	
43	GAM391-A	CAGATCACATCCATCCGTCACC	
44	GAM6633-A	GCACTCAAGCCTGGGTTACAGA	
45	GAM19	AGAGAGTGGCAGGTCTGTTCTT	
46	GAM8358-A	GATGAGGCAGCACTTGGG	
47	GAM3229-A	TGAGGTGGGAGAATTGCTTGAA	
48	GAM7052-A	CATGTAATCCCAGCTACTCAGG	
49	GAM3027-A (mmu-MIR-29c)	TAGCACCATTTGAAATCGGTTA	+
50	GAM21 (mmu-MIR-130b)	CAGTGCAATGATGAAAGGGCAT	+
51	GAM oligonucleotide(mmu-MIR-30e)	TGTAAACATCCTTGACTGGAAG	+

FIG. 23A



Chr 9

FIG. 23B

N2

```
5' --- G A CAGT C--- G C--- --- CC
3' CCC TG GGAA GGC GGGATT TC CAGGG CCCCTT \
   GGG AC CCTT CCG CCGTGA AG GTCTT GGGGGA CG
```

N3

```
5' AC- TA ACA --- - --- AG
3' CTC CTGTTTGC GCATA GGC GTG AAGG OGCG T
   GGG GACAGACG TGTGT CCG CGC TTCC GCGG G
   CAC -- GAC AAGG C TGGG CT
```

MIR23

```
5' -- - C GTGACT T
3' ACC TAGGGACCGT AC ACTAAA A
   AT T - ATTAGA
```

GAM22

```
5' GGTGCG CGCT GCA GAT GG GA GGT GCATCT C TAGCT CTTCTTT A
3' CCACT GCGA CGT CTG CC CT CCA CGTAGA G GTCGA GAAGAAA A
   A CC-- ATTTATTCC - A GG- CT A GA CCACC ACA
```

GAM16

```
5' CTCT AAGTGCAGAGCTTAGCTG GTGAACAG TGG T
3' GAGA TCCAAGTCTTGAATCGGT CACTTGTT GCC T
   AG-- GA-- TC-- T
```

N4

```
5' GGA G AGCCGC G A TT G
3' TG CA TTAAGTTGG TG GGCAG GCGCG GCT A
   GC GT GGTTCGACT AC TCCTC CCGGC CGG C
   --- G GAC--- G G -- G
```

NO

```
5' GGTCAAATGTATTGAAAGTTGCAAAAATTCTTCTTACAAA
3' AAACATAAACCAATGCATCACCTAAGTCGTGTGAAATCA
```

N6

```
5' TG -- C -- GG T G T
3' GGTG A GGGGG GGGG CG GC TTCGGAG AGC C
   CTGAC T TGTCT TCTC GT CG GGTCTTT TTG C
   GT TA C AA GG C G T
```

MIR24

```
5' G G A TA TCTCAT \
3' CTCG GT CCT CTGAGCTGA TCAGT
   A A C C- CACATT
```

N7

```
5' - AT T AAA AG --- - - T
3' TAGC AGCT TGTG ACGC GCCTG TACA GCC TG C G
   GTCG TCGG ACAC TCGG CGGAC GTGT CGG AC G G
   C C- - AC- GA GCAC T T T
```

FIG. 23C

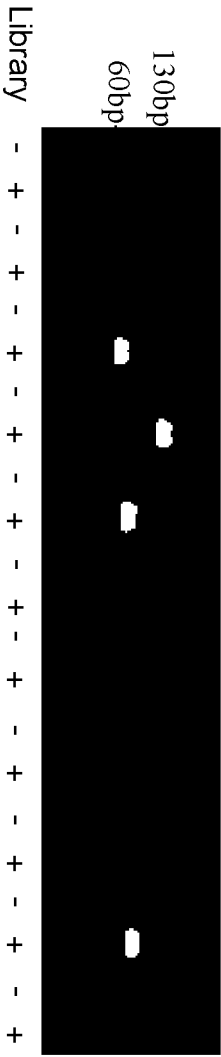


FIG. 24C

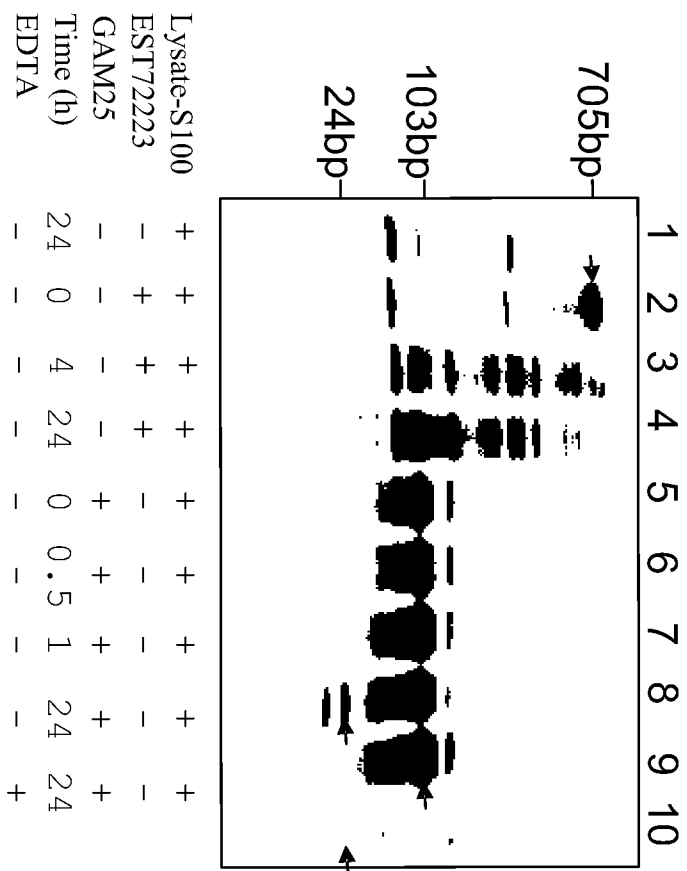


FIG. 24D

